

In The Matter Of:
*Delaware Department of
Natural Resources - Public Hearing*

*RE: Diamond State Generation Partners, LLC.
March 06, 2012*

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STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
and ENVIRONMENTAL CONTROL

COASTAL ZONE ACT PERMIT
PUBLIC HEARING

RE: DIAMOND STATE GENERATION PARTNERS, LLC

BEFORE:
ROBERT HAYNES, Hearing Officer

391 Lukens Drive
New Castle, Delaware

Tuesday, March 6, 2012
6:27 p.m.

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1 THE HEARING OFFICER: We'll start
2 this public hearing, and this is the time and
3 place for a public hearing on the application of
4 Diamond State Generation Partners, LLC, for a
5 permit under the Coastal Zone Act to conduct
6 manufacturing at 1593 River Road, New Castle,
7 Delaware.

8 My name is Robert Haynes. I've been
9 assigned to preside over this hearing and to
10 prepare a report of recommendations for review by
11 the Secretary of the Department, Collin O'Mara,
12 who will be making the final decision.

13 Couple of housekeeping matters. If
14 you have not already done so, please put your
15 electronic devices on silent. And if you do
16 receive a cell phone call, please exit the
17 hearing room before speaking. It's a matter of
18 courtesy for everybody here, particularly the
19 court reporter who will be taking down the public
20 comments presented at this hearing.

21 Department representatives are here,
22 at least there's one official from the Coastal
23 Zone Act program, and some other ones that are
24 here I know but may not be speaking.



1 Mr. Coyle, do you want to introduce
2 yourself and any exhibits you want to admit into
3 the record?

4 MR. COYLE: Yes. Thank you,
5 Mr. Hearing Officer.

6 My name is Kevin Coyle. I'm a
7 principal planner in the office of the Secretary
8 at the Department of Natural Resources and
9 Environmental Control.

10 I'd just like to remind everyone
11 about the purpose of tonight's hearing. We are
12 here to review the Diamond State Generation
13 Partners, LLC's application for a Coastal Zone
14 Act permit to install and operate 235 fuel cells
15 that will utilize natural gas providing up to 47
16 megawatts of electrical power to the PJM
17 electrical grid. We are here tonight to solicit
18 public comment on the Diamond State Generation
19 Partners, LLC, Coastal Zone Act permit
20 application. And as the Hearing Officer just
21 said, no decision on the Diamond State Generation
22 Partners, LLC, application will be made tonight.
23 The Secretary of DNREC will make a decision once
24 the record has been closed and reviewed.



1 Just a word about offset proposal
2 requirements which are a unique factor of the
3 Coastal Zone Act. The regulations governing
4 Delaware's Coastal Zone require an application
5 for a Coastal Zone Act permit for any activity
6 that could result in any negative environmental
7 impact to the Coastal Zone. The regulations
8 require all applications for a Coastal Zone
9 permit to contain an offset proposal and those
10 offset proposals must more than offset the
11 negative environmental impacts associated with
12 the proposed project or activity requiring a
13 Coastal Zone permit.

14 I would now like to read into the
15 record a list of exhibits.

16 Exhibit 1 is an application for a
17 Coastal Zone Act permit dated November 11, 2011,
18 and received on November 17, 2011.

19 Exhibit 2 is an affidavit of
20 publication from the New Castle Weekly dated
21 November 25, 2011.

22 Exhibit 3 is an affidavit of
23 publication from the News Journal dated November
24 28th, 2011.



1 Exhibit 4 is an e-mail with an
2 attachment from Jeffrey Bross, Duffield
3 Associates, Incorporated, to Lee Ann Walling and
4 Kevin Coyle from DNREC dated November 29, 2011,
5 regarding PJM air emissions data.

6 Exhibit 5 is an e-mail with an
7 attachment from Lee Ann walling to Kevin Coyle,
8 dated January 3, 2012, regarding supplemental
9 environmental offset information.

10 Exhibit 6 is an e-mail with an
11 attachment from Lee Ann walling to Kevin Coyle
12 dated January 18, 2012, regarding revised air
13 emissions.

14 Exhibit 7 is an e-mail with an
15 attachment from Lee Ann Walling to Kevin Coyle,
16 dated January 20, 2012, regarding a second
17 revision of air emissions.

18 Exhibit 8 is the Secretary's
19 environmental assessment report dated January
20 2012 and signed on February 10, 2012.

21 Exhibit 9 is an affidavit of
22 publication from the News Journal dated February
23 13, 2012.

24 And finally, Exhibit 10 is an



1 affidavit of publication from the New Castle
2 Weekly dated February 16, 2012.

3 Now, that concludes my list of
4 exhibits for the record, Mr. Hearing Officer.

5 THE HEARING OFFICER: These exhibits,
6 I'll mark them as DNREC Exhibits 1 through 10 and
7 they'll be admitted.

8 Basically the Department develops an
9 administrative record to assist the public in
10 making comments. Tonight the applicant has
11 submitted the application, which the Secretary
12 has determined is complete as indicated in the
13 Secretary's environmental assessment report.

14 With that, I'll turn it over to the
15 representatives of the applicant to make a
16 presentation. And after that I will be taking
17 public comments in the order that people signed
18 in, to the extent you indicated that you wanted
19 to speak. As time allows, we'll have a lot of
20 people to speak who didn't sign up to speak. All
21 right.

22 Are you ready?

23 MR. TUCKER: Thank you, Mr. Hearing
24 Officer.



1 For the record, my name is Shawn
2 Tucker. I represent Diamond State Generation
3 Partners, LLC. Here with me is co-counsel this
4 evening, Mr. Schoell, far end of the table to my
5 right.

6 On behalf of Diamond State Generation
7 company, to my immediate left is Bill
8 Brockenborough. To his immediate left is Nick
9 Ralston.

10 The environmental engineers that
11 we've hired for this project are Jeff Bross from
12 Duffield to my right and, to his right, Rick
13 Beringer.

14 As a housekeeping matter -- and this
15 may clear up some questions that the public may
16 have on this issue, the relationship between
17 Diamond State and Bloom is simply this: Bloom
18 Energy owns the LLC known as Diamond State
19 Generation Partners, LLC.

20 We have prepared a brief Power Point
21 presentation to summarize what we think are the
22 key components of our applications. Obviously
23 the application is quite substantial, and we are
24 happy to drill into specific questions that the



1 public or the Department or the Hearing Officer
2 may have regarding the much larger application,
3 but for convenience and for time purposes, we've
4 prepared what we think are more key factors where
5 there may be questions. And again, happy to go
6 beyond this and much deeper as may be necessary
7 this evening or this evening.

8 Going to slide 1, if I could, slide 1
9 represents an aerial of the site and the
10 surrounding area. And just to help with this a
11 little bit, you see the yellow triangle-shaped
12 parcel? That is the parcel that's part of this
13 application. It's where it lies in relationship
14 to the Coastal Zone and the Delaware River, which
15 is to the right.

16 In and around this site, in terms of
17 resources, you have part of the flood plain. You
18 have wetlands. In addition, you have some
19 riparian buffer that's regulated by the county
20 code, some young forests, and some mature
21 forests.

22 The parcel itself is approximately 42
23 acres. The area that Diamond State will be
24 developing on, which is being leased, is



1 approximately 12.44 acres. And of that leased
2 area approximately 9.3 acres is existing farm
3 land.

4 What I'm trying to point to -- I
5 apologize. It's a little difficult to see in the
6 Power Point -- is the Delmarva substation which
7 is that whiter area that the arrow is pointing
8 to. That will be the substation that will be
9 connected to by Diamond State with the Bloom box
10 that we are going to discuss in a few moments.

11 This slide represents the site plan
12 that has been approved by New Castle County
13 Department of Land Use, which gives you -- you
14 can see the outline of the parcel, triangle,
15 approximate triangle that shows the 42 acres and
16 the lease line, the smaller component of that 42
17 acres, 12.44 acres. Approximately, again, 9.3
18 acres of that area is ag land that is being
19 disturbed.

20 Wetlands make up -- you can see part
21 of the wetland fingers coming in from right to
22 left. The wetland area is about 5.79 acres. We
23 are not disturbing that. The flood plain is
24 about 4.71 acres. We are not disturbing that.



1 The riparian buffer is 8.77 acres. The young
2 forest is 3.76 acres, and the mature forest is
3 about 3.73 acres. We have some disturbance of
4 the young forest and mature forest. There may be
5 a small part of the riparian buffer that is being
6 disturbed, but only as permitted by County Code.
7 We did not need any variances or special
8 exceptions. The plan that you see on the screen
9 here was approved by the County without variance,
10 without exception, and was code compliant.

11 In addition, there was a zoning
12 certification obtained by New Castle County which
13 is part of our application confirming that this
14 is a permissible use at this location and
15 rezoning is not required.

16 The I mentioned a couple of times
17 that there is agriculture activity, farming on
18 this site. The 9.34 acres that is being
19 disturbed that is part of the ag use is being
20 mitigated or offset, if you will. What we did
21 was, in a letter dated December 28, from
22 Duffield, we proposed as part of our application
23 that we would -- I say we; I mean Diamond
24 State -- offer \$20,000 to offset the



1 displacement, if you will, of that ag land and
2 that was based on an average per acre price
3 within the Coastal Zone of approximately \$2,118.

4 In terms of the use -- and I'm going
5 to let Mr. Brockenborough from Diamond State
6 explain how the Bloom boxes work because I'm sure
7 that's what most people are interested in hearing
8 tonight, how this technology works, how it's
9 green, how it's more desirable than other types
10 of energy production methods, particularly fossil
11 fuel methods.

12 But before I get into that. Just
13 quickly, as was already mentioned, there are 235
14 Bloom boxes when this project is complete, and
15 that's going to be a two-phase project. The 235
16 are not going to be built initially but will come
17 on line over time in two phases probably. The
18 total megawatt output will be 47. Phase 1 will
19 be approximately 27 megawatts, just to give you
20 an idea of the phasing that we're anticipating at
21 this stage.

22 So that's a quick sort of thumbnail
23 sketch of the site plan, as well as sort of an
24 overview of what's around us and our relationship



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1 to the Delaware River and the Coastal Zone.

2 Now, with that, what I had like to do
3 is turn over things to Mr. Brockenborough to talk
4 a little bit about the Bloom Energy server or the
5 Bloom box, if you will and also the technology.

6 MR. BROCKENBOROUGH: This is one of
7 our energy servers. The capacity of this is 200
8 kilowatts. It's about 25 feet long by 8 feet
9 wide by about 6 1/2 feet high. Quite compact,
10 compared to other base load type power generation
11 technologies, and also quite quiet. The only
12 moving parts inside the fuel cell are fans for
13 processed air.

14 The unit that you saw is actually six
15 separate generation units of about 35 kilowatts
16 each, and each of these generation units is a
17 collection of fuel cell stacks. And in each fuel
18 cell stack we produce electricity through an
19 electrochemical reaction with no combustion.
20 There's no flame inside the fuel cell. And in a
21 very broad sense, the reaction is analogous to
22 what you have in a lead acid battery where you
23 can connect a load to a headlight and the battery
24 quietly, through a chemical reaction, produces



1 the current that lights the light.

2 In the battery, water will form in
3 the acid and lead oxide forms on the lead plates
4 that needs to be regenerated. But you can
5 imagine that, if you were somehow able to
6 replenish the battery with its acid and its lead
7 continuously, it would sit there and just
8 continuously generate electricity. And that is
9 what our fuel cell does. It does it through a
10 chemical combination of hydrogen and carbon with
11 oxygen, producing H₂O and SO₂ as the only
12 principal emissions. And it does that without a
13 flame.

14 This is a schematic of one scheme we
15 are looking at. We, under certain circumstances,
16 need to supply the fuel cells with water. The
17 fuel cells reform the natural gas that's fed to
18 them into carbon and hydrogen using steam.
19 Ordinarily the fuel cell is using its own exhaust
20 steam in the reformer. If the grid goes away and
21 fuel cells are not at full power, they're only
22 supplying their balance of the plant. They don't
23 produce enough steam to operate, and so we need
24 to supply the fuel cells with water. At this



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1 installation that is going to be a very, very
2 rare occurrence. That would be a regional
3 blackout. We would be disconnected from the grid
4 if there was some kind of grid event that took
5 down transmission lines. So it would be expected
6 very seldom, if ever, would we be operating in
7 this mode, but when we do operate in this mode,
8 we would use water which would then be deionized
9 and fed to the fuel cell. From the deionization
10 process, we have processed water, which
11 essentially is the same water we draw from the
12 well with all the minerals, the minerals that are
13 taken from the DI water or the processed water,
14 which we propose to return through a rapid
15 infiltration basin.

16 An alternate process would be where
17 we are able to get city water supplied to the
18 site.

19 And alternatively, we could use a
20 processed water storage tank to collect any
21 processed water in the rare event where the fuel
22 cells are operating but not connected to the
23 grid.

24 MR. TUCKER: Regarding the PJM



1 region, I'd like to turn it over to Mr. Bross
2 from Duffield Associates to describe this portion
3 of the slide shoe.

4 MR. BROSS: Thank you, Shawn.

5 The offset, one of the offsets that
6 we are proposing in this project is certainly an
7 air quality offset because, in generating power
8 using the Bloom technology and supplying that to
9 the grid, we would be offsetting other more
10 conventional forms of power generation
11 principally within the PJM intersected grid.

12 This is a map showing the states that
13 comprise that grid. And it's important because
14 Mr. Beringer in a minute from our firm is going
15 to walk you through the various fossil fuel
16 generating capacity within the PJM grid, which,
17 depending, again, on which portions of that
18 fossil fuel generating capacity are running would
19 be offset when the Bloom boxes come on line. And
20 we've presented the offsets both in terms of an
21 average offset for all the generating
22 technologies within the PJM grid, and then we've
23 also provided some demonstrated comparisons to
24 show you the various forms of fossil fuel, if



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1 they were to be offset individually, what the
2 advantage by using the Bloom box generation
3 capacity would be.

4 So, with that, I'm going to turn it
5 over to Mr. Beringer from our firm to walk you
6 through some of the air quality offsets.

7 MR. TUCKER: Rick, if you can just
8 point out what the blue and the green is.

9 MR. BROSS: I'm sorry. The blue --
10 I'm sorry. The blue is the PJM region. All of
11 those states or portions of those states have
12 generating capacity that feeds into the PJM grid
13 which, of course, Delaware is served by.

14 MR. BERINGER: This slide shows the
15 location of coal-fired power plants in the PJM
16 grid and some of our neighboring states. Not
17 shown here are -- is New Jersey. We primarily
18 showed what was in state and what was to the west
19 of us.

20 But as you can see, there are a lot
21 of coal plants in Pennsylvania and Ohio, West
22 Virginia. There's four in Delaware currently. A
23 lot in Ohio.

24 This is some modelling that was done



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1 by the State of Delaware Department of Natural
2 Resources. They did some air monitoring down at
3 the Indian River power plant in Sussex county in
4 the Coastal Zone. They were monitoring for a
5 year at several stations. They took the highest
6 particulate readings that they got, the days
7 where they got the highest single readings, and
8 then put those in a NOAA, National Oceanographic
9 and Atmospheric administration, model which takes
10 in the meteorological events from the dates
11 preceding the date they got their reading and
12 backtracks where the particulate matter came from
13 that ended up at their monitoring station.

14 In this case, on December 7, 2008,
15 they were able to track it back to a location in
16 Ohio. On the 14th of December 2007, that reading
17 was tracked back to a location in Ohio. On the
18 20th of December 2007, there was a trace back to
19 upper Pennsylvania around Erie.

20 These are all the highest readings
21 that they got. These are the four days that were
22 the highest readings. Here's the third of
23 February, 2008. This one tracks back to Ohio,
24 West Virginia, or Kentucky border area.



1 Point to that is that our air comes
2 from all over primarily from the west, and a lot
3 of pollutants that we breathe in the Coastal Zone
4 or anywhere in Delaware, for that matter, are
5 coming from the west. They are not locally
6 generated. And by having the Bloom box located
7 here and generating electricity, we'll be
8 essentially turning off some other generating
9 facility in the PJM. Electrical demand is fixed
10 at any moment in time. There's only so many
11 electrons you can put through the grid because
12 it's based on how many people are using it. So
13 somebody will have to turn off and the -- within
14 the grid, that will tend to be the fossil fuel-
15 fired plants, your oil plants, your coal plants,
16 your natural gas plants because they are costing
17 utilities more money to operate. The wind farms
18 that are in the area you can't shut down. They
19 are generating power when the wind blows. The
20 hydroplants, same thing. The nuclear plants more
21 or less the same thing. They can scale back a
22 little bit, but they are not going to turn off.
23 The coal plants you can shut down. The peaker
24 plants, which are typically oil-fired, you can



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1 shut down. And that is, by having the Bloom
2 boxes operate, that's what will happen.

3 This is a comparison of the Bloom box
4 emissions for sulphur dioxide and nitrogen oxide,
5 two average PJM emissions. So this -- the
6 average PJM emissions are -- they include the
7 coal, the oil, the gas, but they also include the
8 power that's produced from nuclear which has no
9 emissions of SOX and NOX. It also includes the
10 wind power that is in the PJM grid. It also
11 includes the hydropower that in the grid such as
12 the Conowingo Dam. So it's a very good average.

13 And in that comparison, you can see
14 that, by Bloom operating at 47 megawatts and
15 turning off 47 megawatts somewhere else in the
16 grid, you're getting almost 100 percent reduction
17 in sulphur dioxides and nitrogen oxides.

18 This is -- we don't have average
19 values for these parameters. PM is particulate
20 matter, arsenic, beryllium, cadmium, cobalt,
21 lead, manganese, mercury, nickel, and selenium
22 are metals. The total PAHs are polynuclear
23 aromatic hydrocarbons, and VOCs are volatile
24 organic compounds.



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1 We've shown -- tried to show in this
2 illustration that, out of all these things, and
3 they are -- they come out of the exhaust of
4 burning fuels. Primarily coal is showing up
5 there in the red. You don't see Bloom. Bloom
6 doesn't emit any of the metals. It doesn't emit
7 particulates. It doesn't emit PAHs. It does
8 emit a few volatile organic compounds in the
9 recombination of the natural gas or the -- that
10 pass through with the natural gas, the
11 contaminants in the gas itself. And those are
12 things like butane, pentane that are there in
13 trace amounts.

14 You know, the really nice thing is
15 that we don't -- you're not getting these toxic
16 metals that come out. You don't get the PAHs,
17 you know, which are also being produced by diesel
18 engines and cars. So it's -- you know, it's
19 really a marvelous change for the better.

20 Come around to something like CO₂,
21 which has got a lot of people's attention now.
22 It's not regulated, but here again, the Bloom
23 cells, while they produce CO₂, that's part of the
24 chemical process of combining decomposing



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1 methane, generating power. The output is CO2 and
2 water. Compared to the other technologies that
3 are around and the PJM average, it's much lower
4 and will cause a reduction in CO2 production
5 within the PJM region.

6 And this is a -- gives you a picture
7 of how the -- what the Bloom servers look like in
8 an application.

9 MR. BROSS: I guess maybe we could
10 add to it that many of these applications, they
11 are actually a corporate art form because they do
12 have a very clean industrial look to them. This
13 is a particular application in California, and if
14 you're interested, certainly Mr. Brockenborough
15 can speak to some of the other applications
16 around the country.

17 So, with that, we are going to stop,
18 Mr. Hearing Officer, and certainly allow you to
19 entertain some other public comment and certainly
20 address any questions you or others may have.

21 THE HEARING OFFICER: Thank you.
22 This is the time for the public to make comments
23 on the application. As part of the comment
24 process you can ask questions of the applicant,



1 and also you can ask questions of Mr. Coyle. He
2 can answer them. If the applicant or Mr. Coyle
3 can't answer questions, we can defer and get a
4 response back to the person who asked the
5 question.

6 With that, John Nichols.

7 MR. NICHOLS: Thank you.

8 My name is John Nichols. I live in
9 Middletown, Delaware. And I do have a few
10 questions.

11 Representatives who are speaking on
12 behalf of Bloom, or Bloom themselves, are they
13 familiar with a report paper that was written by
14 Robert Spitzga and submitted to the Delaware
15 Public Service Commission at the Bloom hearings
16 pertaining to the Bloom fuel cells versus natural
17 gas fire cogeneration? Has anyone read that
18 report?

19 All right. Let's talk about that in
20 connection with your summary.

21 THE HEARING OFFICER: Who is going to
22 be the primary person to respond to questions?

23 MR. TUCKER: Hearing Officer, I think
24 it will depend on the answer. So let's --



1 THE HEARING OFFICER: Well, the court
2 reporter has to know, so...

3 MR. TUCKER: I'll try to field it to
4 the right person, if that will help, Hearing
5 Officer, and I think the first question before we
6 move on to what is being said next, why don't we
7 answer that question. Has anybody from Bloom
8 heard of that report that Mr. Nichols is
9 referring to?

10 MR. BROSS: No.

11 MR. TUCKER: Do we have a copy?

12 MR. NICHOLS: I do. I'm going to
13 make it part of the record this evening.

14 This report looks at the CO2
15 emissions and it does a comparison of CO2
16 emissions for base case. Base case in this
17 example is in California, PG&E. They use cogen
18 and they also look at the Bloom system plus a
19 gas-fired boiler.

20 The author's contention here is that
21 the Bloom system does not reduce CO2 because it
22 ignores the need for thermal energy, meaning
23 heating and cooling your building. In this
24 analysis -- and I'll get to my question in just a



1 moment, but I have a bunch of them.

2 The CO2 emissions for the base case
3 just for electricity -- and we are looking at 100
4 kilowatts in this example -- are 206 tons per
5 year. But the boiler operation is 494.7 tons for
6 total CO2 emissions of 701 tons. That is base
7 case, no Bloom.

8 And we look at cogen where we have
9 hot water and cooling provided on site along with
10 electricity. Just to get to the bottom line, in
11 that example, the total CO2 emissions are 678.85
12 tons per year.

13 Now, when we look at Bloom with the
14 same 100 kilowatts of emission and we add the
15 need for thermal energy, which your analysis this
16 evening ignored as well, we find that there's a
17 net increase in CO2 emission, which presents
18 799.4 tons per year of CO2. So the Bloom
19 technology, when we account for the need for
20 heating and cooling, does not reduce CO2 and it
21 would appear -- and here's my question -- that
22 your analysis this evening doesn't reflect that
23 people need to cool and heat their buildings; you
24 just account for electricity. If we are



1 accounting for the need for thermal energy, it
2 seems that you dramatically overstated how much
3 of an environmental benefit Bloom has to offer.
4 But if you can comment to that question with
5 respect to the need for thermal energy, and I'll
6 include this as part of the public record. I'd
7 like your comments on that this evening or at a
8 later date.

9 MR. TUCKER: Hearing Officer, Shawn
10 Tucker for the record. I'd like to respond part
11 on legal grounds and then my client and Duffield
12 Associates would like to address the question in
13 terms of the technical question that's being
14 asked.

15 As to the legal issue raised by the
16 question, as was noted during our presentation,
17 and as DNREC is aware, CO2s are not regulated as
18 part of the Coastal Zone application. And so as
19 a matter of whether this is relevant or not to
20 the approval of this approval of the application,
21 under the legal standard, it was not relevant,
22 but it is certainly a fair question that
23 Mr. Nichols asked and we are happy to respond to
24 it.



1 Obviously, we've not had a chance to
2 see the report, and so we're not -- we haven't
3 had a chance to obviously have our expert analyze
4 this report. Nevertheless, even if we did have
5 the report, legally, it's ultimately not relevant
6 to the approval or disapproval for what we are
7 here for this evening, but again, a fair question
8 by Mr. Nichols and I think Mr. Brockenborough
9 would like to respond and Mr. Bross may have some
10 follow-up comments.

11 MR. BROCKENBOROUGH: Certainly. It
12 is certainly true where you have an application
13 where you're able to use natural gas and obtain
14 from that natural gas not only electricity but
15 immediately usable heat, that is the most
16 efficient use of that natural gas. That is
17 certainly the case. Those applications are
18 pretty limited. Certainly, the typical building,
19 the one we are in, a house, most commercial
20 facilities, don't have perfectly balanced
21 electrical and thermal load, and where
22 cogeneration can be applied, it can be applied to
23 a portion of the electric load.

24 We are always going to need electric



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1 only generation to supply electric demands.
2 They're not tied to thermal demands. What our
3 presentation addressed was the fact, with
4 electric only generation, there are two points.
5 First, within the PJM system, if we introduce our
6 technology, it will offset megawatt for megawatt
7 generation. That's the first point. And second
8 point is we are much less carbon intensive than
9 the average generation within PJM. So applying
10 our technology will result in a net reduction of
11 CO2 for the electricity consumed in the PJM area.

12 MR. NICHOLS: You've got --

13 MR. BROSS: I think
14 Mr. Brockenborough said it well.

15 MR. NICHOLS: Okay. I'll accept
16 that, but your report also looks at -- does not
17 look at the need for the thermal energy to heat
18 and cool buildings. It only looks at electrical
19 output. So, in fairness, I think your report is
20 incomplete. I think you need to include that in
21 the report, in order to determine what kind of
22 environmental offset you're providing. The need
23 for thermal energy is totally ignored.

24 The other thing in your report that



1 you've done is you used average cost -- pardon
2 me. You've used average electricity sources. In
3 other words, we get approximately 50 percent of
4 our electricity from coal, 30 percent from
5 natural gas, 20 percent from nuclear. You've
6 taken an average. What you should be doing is
7 using a weighted average in order to determine
8 what environmental benefits you are providing.

9 In that case, when you're looking at
10 coal -- when you're looking at natural gas and
11 nuclear, nuclear which is has no particulate
12 emissions whatsoever, your environmental offsets
13 are even more limited. So I think your report is
14 incomplete and inadequate.

15 MR. TUCKER: Mr. Nichols, just a
16 quick question for the record, are you referring
17 to CO2 emissions?

18 MR. NICHOLS: No. I'm referring to
19 the particulate emission, SOX and NOX. You have
20 used an average of the energy that's available
21 and you have not used a weighted average, which
22 would be more appropriate. Therefore, I think
23 you're overstating the so-called benefits
24 associated with your technology. So I think it's



1 incomplete, and therefore, I request that another
2 study be conducted reflecting the weighted
3 averages need for thermal energy in that report
4 which you ignored. Therefore, that might put us
5 in another -- this might put us in another light.
6 That's the first issue.

7 MR. TUCKER: Can we respond to that?

8 THE HEARING OFFICER: Are you
9 finished?

10 MR. NICHOLS: I have no question, but
11 I'm finish on that point.

12 THE COURT: Let's continue on with
13 the comments.

14 MR. NICHOLS: I read your application
15 last night, and I saw that you've indicated in
16 the application for the Coastal Zone exemption
17 that there is no -- I'm trying to remember the
18 term. There is no technology associated with
19 this that is now considered to be trade secret
20 exemption. You've waived the trade secret
21 exemption in your Coastal Zone application.
22 That's my understanding. I read it last night,
23 but you can confirm it.

24 Here's why I'm asking the question.



1 Are you familiar with a report that was done by
2 National Energy Laboratories -- pardon me -- for
3 the National Energy Laboratories concerning
4 market impact of rare earth elements used in
5 solid oxide fuel cells. Are you familiar with
6 that report?

7 MR. TUCKER: Let's hear from the --

8 MR. NICHOLS: I will provide it.

9 MR. TUCKER: Hearing Officer, would
10 you like us to respond to individual questions?

11 THE HEARING OFFICER: He did ask a
12 question that time.

13 MR. NICHOLS: I'm ready to ask a
14 question. I have to provide background.

15 THE HEARING OFFICER: Where are you
16 going with this?

17 MR. NICHOLS: Thank you very much.

18 The back -- well, it's -- rare earth
19 elements are used in all solid oxide fuel cells
20 according to this study, specifically yttrium and
21 cerium oxide and lanthanum. This is an OSHA
22 report. I'm going to include this as part of the
23 record.

24 OSHA lists yttrium as a hazardous



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1 material. You've indicated, or the Secretary has
2 indicated, that there are no hazardous -- there
3 are no hazardous wastes generated. I guess we
4 can argue about what it means, generated, but if,
5 in fact, Bloom technology does use yttrium, then
6 that report says that's a hazardous material,
7 which you are injecting into a Coastal Zone
8 environment.

9 I'm concerned about that. I don't
10 see anything dealing with that. What if there
11 was a catastrophe? I know you've got a ten-foot
12 fence around the place. But what if there was a
13 terrorist event? What if it blew up? I know
14 you've got containment measures, but they had
15 containment measures in the Gulf and we had a big
16 problem.

17 So my question is, what are you doing
18 to assure us that this hazardous material won't
19 be spread into a sensitive wetland environment.
20 That's another question. If anything. I saw
21 nothing in the report that covered that issue,
22 and in fact, there's denial that any hazardous
23 waste exists. But OSHA specifically notes
24 yttrium is a hazardous product.



1 And I also have information regarding
2 cerium dioxide. This is not from OSHA. This is
3 from Acros Organics. I'll provide this for the
4 records. Fair Lawn, New Jersey. Which is most
5 likely -- according to the report, it's known to
6 cause eye, skin, and respiratory irritation.
7 None of this has been addressed.

8 I also have another report on cerium
9 oxide dealing with inflammation of vascular
10 endothelial cells, pertaining to cerium oxide.

11 Again, no mention of this. In fact,
12 it's specifically indicated there is no hazardous
13 material generated. And that would seem to be in
14 error. So I'll include the market impacts in
15 that.

16 What are you going to do about that,
17 if anything? Will you acknowledge that there
18 are, in fact, hazardous materials in your Bloom
19 fuel cells?

20 THE HEARING OFFICER: If you can
21 respond to that now, give it the best shot.
22 Otherwise you can provide a written response
23 later.

24 MR. BROCKENBOROUGH: Yeah. We're not



1 able to discuss the specific chemical composition
2 of our fuel cells.

3 MR. NICHOLS: Therefore, I would ask
4 that this application be rejected because they
5 specifically waived any trade secret exemptions
6 in their application. Absent that information,
7 this must not be approved.

8 What else can I talk to you about
9 this evening?

10 THE HEARING OFFICER: Let me just
11 mark this --

12 MR. NICHOLS: Pardon me?

13 THE COURT: Mark this as Nichols
14 Exhibit 1, which is the discussion paper. Do you
15 have any other exhibits?

16 We'll mark the Power Point
17 presentation of Diamond State Generating
18 Exhibit 1.

19 MR. NICHOLS: The last question
20 pertains to \$20,000. This is nine acres of prime
21 agricultural land that is not going to be used in
22 an agriculture setting any more. It's going to
23 be used in an industrial application. According
24 to some studies over market cost of the



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1 electricity --

2 THE HEARING OFFICER: Sir, I need to
3 mark exhibits here. I'll provide them to the
4 applicant.

5 "Market Impacts of Rare Earth
6 Elements Used in Solid Oxide Fuel Cells" will be
7 Nichols Exhibit 2. You can look at them now if
8 you want to.

9 Also the Department's exhibits are
10 available for public inspection.

11 Nichols Exhibit 3 is the research
12 article, Inhalation Toxicology, 2009. Articles
13 on inflammation and vascular -- I can't pronounce
14 that one. We'll mark that as Exhibit 3.

15 MR. BROSS: Mr. Hearing Officer, Jeff
16 Bross. If I might interrupt, here is a formal
17 submission of our presentation tonight. I'm not
18 quite sure where this one came from, but this is
19 the one that should go into the record.

20 THE HEARING OFFICER: I trust my
21 source. Mr. Coyle. Is it the same one?

22 MR. COYLE: Mm-hmm.

23 THE HEARING OFFICER: I think it is.
24 Next is a material safety data sheet



1 for cerium oxide, Nichols 4.

2 And the last one, Nichols 5, last one
3 for now, is the OSHA report guidance document.

4 You're welcome to look at those.

5 Mr. Nichols.

6 MR. NICHOLS: The \$20,000. Since we
7 are talking about an industrial application
8 versus an agricultural purpose, it seems to me
9 that the amount of money that you're offering as
10 a sum to mitigate against any environmental
11 hazards is way too low. Highest and best use is
12 what we should be using. You're not. I'd like
13 to know why you're not and why it is \$20,000 is
14 adequate compensation given the environmental
15 hazard that this technology offers. I suppose
16 you don't have an answer for that, but that's --

17 MR. TUCKER: Excuse me, Hearing
18 Officer. Sarcasm is really unnecessary.

19 MR. NICHOLS: I apologize.

20 MR. TUCKER: Nor is the dramatic --

21 MR. NICHOLS: I apologize. I
22 apologize.

23 THE HEARING OFFICER: First rule.
24 Don't talk over or interrupt anybody. The court



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1 reporter can only take down one person at a time.

2 MR. NICHOLS: Mm-hmm.

3 THE HEARING OFFICER: Basically, I
4 give certain latitude on public comments, but --

5 MR. NICHOLS: Thank you.

6 THE HEARING OFFICER: But I think the
7 real question is the Department also approved
8 that 20,000 because that was the Secretary's
9 assessment. He approved the offset. So, to the
10 extent that that's an issue, if you would like to
11 put into the record what you think would be an
12 appropriate offset, then the Secretary will take
13 that into consideration.

14 MR. NICHOLS: Sure. My
15 recommendation is highest and best use. Thank
16 you.

17 And the last question, the Secretary
18 is again promoting sea level rise throughout
19 Delaware, saying that we are going to experience
20 five feet sea level rise and there are inundation
21 maps that have been prepared showing what areas
22 of the state are going to be affected. Does this
23 area exist within those -- within the inundation
24 map as provided by the Coastal Zone? If it is,



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1 probably shouldn't be there.

2 MR. BROSS: Mr. Hearing Officer, Jeff
3 Bross. If I might address Mr. Nichols, at least
4 the last two questions that he asked --

5 MR. TUCKER: If we can just confirm
6 that those are all the questions, Hearing
7 Officer.

8 MR. NICHOLS: That's it.

9 MR. TUCKER: Thank you.

10 MR. BROSS: First of all, on the
11 issue of sea level rise, the numbers that have
12 been bandied about for sea level rise, I think,
13 are overstated by Mr. Nichols. But assuming that
14 it's in the three- to five-foot range, this site
15 would not be impacted by sea level rise of that
16 magnitude.

17 To address the farm land preservation
18 offset, I don't know, Mr. Nichols, if you're
19 familiar with the December 28, 2011, letter that
20 we sent, and I presume, then, you're taking issue
21 with that. But clearly I think the record shows
22 and the Department has accepted that we based the
23 value of farm land on the most recent farm land
24 preservation purchase within the Coastal Zone and



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1 that was the amount of \$2,118.07 an acre, which
2 is a fairly generous as farm land preservation
3 numbers go amount times the acreage that we are
4 impacting. It actually comes to slightly less
5 than \$20,000. It comes to \$19,700 in round
6 numbers, and therefore Bloom offered a \$20,000
7 payment, which was deemed acceptable by the
8 Department.

9 MR. TUCKER: And lastly, Mr. Hearing
10 Officer, Mr. Brockenborough, I think, would like
11 to briefly respond to the metals that are used in
12 Bloom boxes.

13 MR. NICHOLS: Excuse me. May I
14 correct your statement? I didn't ask metals. I
15 asked elements.

16 THE HEARING OFFICER: No. You do not
17 have --

18 MR. NICHOLS: He's contradicting me.

19 MR. TUCKER: Thank you, Mr. Chairman.

20 THE HEARING OFFICER: Again, they
21 have the floor. They've got the floor. Don't
22 interrupt.

23 MR. BROCKENBOROUGH: There were a
24 couple of questions, one about average figures



1 for particulates. We used average figures for
2 PJM emissions where they were available. They
3 were average figures for NOX and SOX and CO2, but
4 not for particulates.

5 On the issue of rare earths, again, I
6 can't discuss the specific chemical composition
7 of the ceramic inside the fuel cell, but I can
8 state that there are no emissions or discharges
9 of any such material in the operation of the fuel
10 cell.

11 THE HEARING OFFICER: All right.
12 Thank you for that. And thank you, Mr. Nichols,
13 for your comments.

14 Elizabeth Brown.

15 MS. BROWN: Hi. Good evening. My
16 name is Elizabeth Brown. I'm director of
17 Strategic Initiative and I'm counsel with
18 Delaware Riverkeeper Network.

19 We were established in 1988 upon the
20 appointment of the Delaware Riverkeeper, and we
21 are a non-profit 501(c)(3) membership
22 organization. Our professional staff of
23 volunteers work throughout the entire Delaware
24 River watershed, including portions of Delaware,



1 Pennsylvania, New Jersey, and New York. The
2 Delaware Riverkeeper Network champions the rights
3 of our communities to the Delaware River and
4 tributary streams that are free-flowing, clean,
5 and healthy.

6 While we do not support or oppose a
7 particular project at this point in time, the
8 Delaware Riverkeeper Network is keenly concerned
9 about natural gas development within the
10 watershed. The shale gas play is undoubtedly a
11 game changer, and while many tout the fuel as
12 clean burning and a bridge to renewables, those
13 labels belie its extreme toll on the environment
14 levied by extraction and transportation of gas to
15 the market. And the proposal currently before
16 DNREC appears to provide such a market for this
17 extreme fossil fuel.

18 Delaware Riverkeeper Network's
19 conceptual concern is that the development of
20 this project will lead to further
21 industrialization and investments for yet another
22 fossil fuel infrastructure. Regulation 6.3.1
23 requires the Department to consider the
24 environmental impact in considering applications.



1 More specifically, regulation 8.3.3 requires the
2 Secretary to consider any impact the proposed
3 activity may have on the Department's
4 environmental goals for the Coastal Zone and the
5 environmental indicators used to assess long-term
6 environmental quality within the zone.

7 And regulation 6.3.4 requires DNREC
8 to consider the number and type of supporting
9 facilities required and the impact of such
10 facilities on all factors listed in the
11 subsection.

12 It seems that the application may not
13 go far enough in discussing how the project
14 meshes with the Department's environmental goals,
15 nor does the application seem to satisfy the
16 requirement to address long-term environmental
17 quality, and importantly, the gas-related
18 infrastructure such as additional pipelines and
19 energy-related facilities and other requirements
20 that may truly be necessary to get the project up
21 and running and keep it running into the future.

22 Regulations also require applications
23 to contain an offset proposal, action that more
24 than offset the environmental impacts associated



1 with the project requiring a Coastal Zone permit.
2 The true cost of this project should address the
3 environmental impact of the source fuel, natural
4 gas, taking all the environmental costs and
5 disadvantages into consideration. Delaware
6 Riverkeeper Network believes that the offset
7 proposals are insufficiently specific or adequate
8 in this case.

9 The application indicates that
10 cooling water is required only intermittently and
11 estimates that a few thousand gallons for a
12 handful of dates per year would be used and would
13 be drawn from ground water. The water would be
14 discharged back to ground with some total
15 dissolved solids being discharged. It seems that
16 this environmental detriment should also be
17 addressed through offsets.

18 Finally, the proposed lump sum
19 payment for land use changes, I believe -- I'm
20 actually going to go over that part of my
21 comment. I believe that was addressed in your
22 response to the prior gentleman's comments.

23 Regulation 8.2.10 requires that raw
24 materials, intermediate products, byproducts, and



1 final products and their characteristics from
2 MSDSs, if available, et cetera, be included in an
3 application.

4 And finally, the level of detail in
5 the application raises some concerns for Delaware
6 Riverkeeper Network. The application does not
7 seem to adequately identify the source or sources
8 of natural gas that would be used for the
9 facility.

10 So my first question, if I could pose
11 it directly to the panel would be, what is the
12 proposed source? And the second question related
13 to this is does the infrastructure currently
14 exist to connect in as it were.

15 MR. BROCKENBOROUGH: Certainly. The
16 source of the natural gas is going to be
17 Delmarva, and we are going to get the natural gas
18 from a distribution line that's on River Road.

19 I'd like to address your comment
20 about concerns about the impact of shale gas.

21 THE HEARING OFFICER: She just wanted
22 the one question. I mean, you'll have -- let her
23 continue with this.

24 MR. BROCKENBOROUGH: All right.



1 MS. BROWN: That's fine. My next
2 question is, what are the current life cycle
3 estimates of the facility and what is the
4 capacity and/or possibility for expansion into
5 the future?

6 MR. BROCKENBOROUGH: We don't
7 envision any expansion beyond the 47 megawatts
8 for which we are applying right now, and the life
9 cycle of the project is approximately 22 years.

10 MS. BROWN: My next question concerns
11 the TDS. The current estimate of generation of
12 TDS in water, is this a best case/worst case
13 scenario? Do you have any more detail that you
14 can provide on that?

15 MR. BROSS: If I might address
16 that -- Jeff Bross, Mr. Hearing Officer -- the
17 total dissolved solids you're referring to, I
18 presume, is in the discharge waters. We think it
19 is a conservative estimate, and I would say, in
20 response to an earlier comment you made, that the
21 water that would be recharged under the one
22 option, which uses well water, actually is
23 putting drinking water quality water back into
24 the ground. So I think any characterization to



1 the contrary is hyped and misrepresented. So
2 that was in our application and hopefully you saw
3 it in there, so...

4 MS. BROWN: To what extent will
5 repair or maintenance of the cells take place on
6 site and are there any plans to change or adapt
7 that in the future?

8 MR. BROCKENBOROUGH: The site plan
9 includes a small facility for the storage of
10 spare parts and some maintenance of the fuel
11 cell. Balance of the plant will be performed on
12 site. Balance of plant will be filters, blowers,
13 and so forth.

14 MS. BROWN: That was my final
15 question. Thank you so much.

16 THE HEARING OFFICER: Thank you.

17 Next person that signed up to speak
18 was Brenna Goggin.

19 MS. GOGGIN: Good evening. My name
20 is Brenna Goggin. I'm representing the Delaware
21 Nature Society this evening.

22 The Delaware Nature Society is a
23 private, nonprofit membership organization with
24 more than 6,000 members statewide that work to



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1 foster understanding, appreciation, and enjoyment
2 of the natural world through education, advocacy,
3 and preservation.

4 We have been a strong supporter of
5 the Delaware Coastal Zone Act since its inception
6 and have reviewed and provided comments on
7 numerous Coastal Zone applications. While we are
8 not prepared to support or oppose the project
9 this evening, we do have several concerns
10 regarding Bloom Energy's proposed offset.

11 From what I was hearing through the
12 presentation and my understanding of what I have
13 read, Bloom Energy is proposing that, by coming
14 on line, they should be considered an offset
15 themselves. Bloom would be a great offset for a
16 coal-fired power plant, but it cannot be
17 considered an offset by itself. For example,
18 there was a previous application that proposed a
19 concrete recycling facility. They also had
20 offsets for their impact themselves, not the
21 offset of what a concrete facility would then
22 require to have an offset within a 200-mile
23 radius.

24 The Coastal Zone regulations are



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1 designed to promote improvement of the
2 environment within the Coastal Zone. Bloom has
3 not shown how their proposed offset will
4 accomplish this. It is unclear how emission
5 reductions within the PJM grid are clearly and
6 demonstrably more beneficial to the environment
7 in the Delaware Coastal Zone as required by the
8 regulations. The locations of the referenced
9 power plants within the PJM grid are not
10 specified, although that was addressed this
11 evening in the presentation. But it is unlikely
12 that changes in their operation resulting
13 directly from start-up of the applicant's
14 facility will result in clear and demonstrable
15 improvement in air quality in Delaware's Coastal
16 Zone. We believe DNREC should require a revised
17 offset proposal.

18 Thank you for the opportunity to
19 comment.

20 THE HEARING OFFICER: Thank you.

21 Do you want to submit your written
22 comments as exhibits? That can be done too. You
23 already did?

24 MS. GOGGIN: Mm-hmm.



1 THE HEARING OFFICER: All right.
2 Would you hand it to me?

3 MR. TUCKER: Mr. Hearing Officer,
4 just briefly for the record, there are some
5 timing issues that we are concerned about, so we
6 would like to try to respond as best we can to
7 some of these comments.

8 Legally I would respectfully submit
9 that the proposed new technology itself can be an
10 offset. There's nothing that I read in the Act
11 that prohibits that. And we would submit that
12 any green technology, the fact that it's green
13 technology itself, can be considered in the
14 offset. There's certainly nothing that prohibits
15 that as I read the act.

16 Regarding how the actual offset
17 works, I will defer briefly to Mr. Bross on that
18 point.

19 MR. BROSS: Thank you, Mr. Tucker.

20 We think we have shown clearly and
21 compellingly and conservatively the fact that the
22 Bloom technology does provide an offset in the
23 PJM scenarios we presented using offsetting the
24 average of all generation within PJM. We could



1 have easily gone, and in fact, did go, to a coal
2 plant and the offsets are almost 100 percent.
3 But we thought it was only fair and conservative
4 to offset the average of all PJM generating
5 capacities and technologies. And in fact, we
6 have still shown a considerable improvement.

7 So I'm struggling a little bit with
8 the comments from the DNS. It appears they
9 haven't thoroughly read the application and
10 certainly don't understand the analysis that was
11 done. Clearly the Department of Natural
12 Resources who has experts, a wide array of
13 experts in the air quality field, have accepted
14 our proposal and certainly, we feel, correctly
15 so.

16 So those would be my comments.

17 MR. TUCKER: Thank you.

18 All right. That completes the public
19 comments from anybody who indicated they wanted
20 to speak. Is there anybody that did not sign up
21 to speak who would like to speak. And,
22 Mr. Nichols, I think you indicated --

23 MR. HAHN: I signed up to speak.

24 THE HEARING OFFICER: I am sorry.



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1 You did. I totally -- Mr. Hahn.

2 MR. HAHN: I just have a couple
3 questions, I guess, comments. One, in siting the
4 facility, I wonder if there was any effort to use
5 some already industrial land and brown field
6 sites. I think that's a prudent Coastal Zone
7 policy. For instance, the MediChem site across
8 the street or across the Red Lion Creek is a site
9 that's considered a brown field that, you know,
10 wouldn't require taking additional farm land, so
11 to speak, and may put back into productive use an
12 already impacted site.

13 Related to that, with the ground
14 water, I know there was a comment about
15 alternative sources. I'm wondering, with the
16 well, with the ground water contamination from
17 the MediChem site, whether there would be any
18 issues. I don't know that answer. But I
19 understand there is contamination in the Potomac
20 aquifer, and what that would do -- whether that
21 would impact the groundwater remediation strategy
22 at MediChem and/or the quality of ground water.

23 In terms of storm water, I did see
24 there was a note that, because the property is



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1 agricultural, that current levels of pesticides,
2 herbicides, and fertilizers used would no longer
3 be discharged to the storm water -- to the river
4 or to the Coastal Zone. I wonder if there's any
5 data available about that or whether those things
6 actually are discharged in storm water or
7 infiltrated. A lot of pesticides, herbicides,
8 the particular breakdown may not be discharged.
9 There may maybe some fertilizers. But also,
10 whether there would be some type of commitment
11 or -- you know, if there would be some kind of
12 policy at the new facility not to use pesticides
13 because, you know, you could use pesticides or
14 herbicides as part of the management of that
15 facility as well.

16 The other thing that's been mentioned
17 a couple of times is that the \$20,000 -- I think,
18 you know, in the Coastal Zone in particular in
19 this area, protection of marshlands, restoration
20 of marshlands is required. There was a report
21 from DNREC last week about the loss of wetlands
22 despite, you know, regulatory actions and
23 policies. There's still been significant loss of
24 wetlands. So I think, focussing on wetlands,



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1 particularly tidal marshes and marshlands, which
2 would be the focus of this \$20,000, is a good
3 measure. \$20,000, however, isn't going to go
4 very far in marsh restoration. And I think, you
5 know, one of the ways for dealing with marsh
6 restoration or marsh preservation is in -- and
7 sea level rise is allowing for retreat, if you
8 will, and these farmlands and upland areas, you
9 know, are going to be important in that. So I
10 understand, I guess, how the \$20,000 was arrived
11 at, but I think the value of that land relative
12 to protection of marshes and protection of the
13 Coastal Zone could be significantly higher using
14 some other valuation techniques.

15 And again, I just commented, the
16 \$20,000 isn't really going to get you very far at
17 all. There's some funds -- there are some
18 studies available what per acre -- you know, for
19 instance, what marshland restoration cost in
20 Delaware, and I don't know if there's a
21 particular marsh project that says it would help
22 restore marshland in the vicinity of the project.
23 So I'm not sure what particular marsh area may be
24 targeted, but a lot of marshes in this area have



1 been impacted from dredging and filling and
2 diking, those type of things, and then across the
3 Red Lion Creek, actually even contamination. So
4 it's pretty challenging but a worthy focus of an
5 offset, but I don't think the \$20,000 is going to
6 get you too far.

7 THE HEARING OFFICER: Are you done?
8 Thank you very much.

9 Mr. Nichols, any more comments?

10 MR. NICHOLS: I do have a comment.

11 THE HEARING OFFICER: Nobody else
12 wanted to --

13 MR. BROSS: Mr. Hearing Officer,
14 would you like us to respond to those questions
15 first before we go to Mr. Nichols while they're
16 fresh in our mind?

17 THE HEARING OFFICER: I didn't really
18 hear specific questions unless I missed that.
19 Again, I apologize. I thought there's more just
20 comments.

21 MR. HAHN: I think I had one
22 question.

23 THE HEARING OFFICER: You're entitled
24 to provide a written response.



1 MR. HAHN: I may have had one
2 question, mostly comments. And that was whether
3 any alternative sites maybe in the area were
4 looked at like a brown field site versus
5 farmland.

6 MR. TUCKER: Shawn Tucker for the
7 record.

8 The site locations were driven by the
9 proximity to existing Delmarva power substations.
10 And this site and the Brookside site, which is
11 not the subject of tonight's hearing, but the two
12 sites that are being proposed for development
13 with Bloom boxes are both adjacent or contiguous
14 to existing substations. That was the driving
15 factor.

16 Thank you.

17 MR. HAHN: Does that mean that
18 industrial sites weren't looked at?

19 MR. TUCKER: Only sites that were
20 next to existing substations, and these were the
21 two that were focussed on.

22 MR. HAHN: Maybe just a quick --

23 THE HEARING OFFICER: That can be
24 your comment. You can ask the Department to



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1 consider that, but that's...

2 MR. HAHN: Well, just a quick
3 follow-up, how far away can you be?

4 MR. BROSS: Hypothetically you can be
5 very far, but the further you go away, then the
6 additional easements and right-of-ways and power
7 lines you have to run through the Coastal Zone.

8 MR. BERINGER: More inefficiency.

9 THE HEARING OFFICER: All right. Are
10 we done?

11 MR. BROSS: For the record, there
12 were a couple of questions asked and comments
13 made. And they were good comments, by the way.

14 Storm water management on the site is
15 going to use green technology. It's shown in the
16 plans. We expect a significant improvement in
17 the storm water quality running into adjacent
18 wetlands as a result. There have been numerous
19 studies that show the impacts of farmland,
20 including pesticides, herbicides, sediment loss,
21 all of which go away with this proposal. And so
22 that's significant.

23 Your comment about contamination of
24 ground water, it's our opinion that ground water



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1 at this site is not contaminated. Certainly you
2 made some reference to the MediChem site. And
3 you know, there is some contamination in the
4 area, but not related to this particular site.
5 And we don't think that -- as a matter of fact,
6 we are of the opinion we will not exacerbate
7 those problems as a result.

8 The -- I think you had one other
9 comment. Oh, the brown fields comment. Again,
10 you heard the answer to that. We need proximity
11 to the substation. And I guess I would certainly
12 observe that the reason we are here is because
13 the, if you will, the generation of energy has
14 been ruled by the Department to be a
15 manufacturing use. It's, in our opinion, it's a
16 bit of a stretch, but it's their determination
17 and we are respecting that and that's why we are
18 here.

19 THE HEARING OFFICER: Mr. Nichols.

20 MR. NICHOLS: I just wanted to also
21 mention for the record that attachment F, which
22 deals with the environmental assessments, a
23 letter from the State of Delaware Natural
24 Heritage Program, which is required as part of



1 the approval process, was not included at this
2 hearing. It says, "To follow."

3 Again, I feel that this application
4 is incomplete and should be rejected.

5 Thank you very much.

6 THE HEARING OFFICER: I think that --
7 Mr. Coyle, do we include that in the exhibits? I
8 thought I saw that. The Natural Heritage letter.

9 MR. NICHOLS: Include this as an
10 exhibit, please.

11 MR. TUCKER: Mr. Hearing Officer, we
12 may be able to respond.

13 MR. BROSS: Mr. Hearing Officer, that
14 letter was furnished to the Department. So we
15 presume that they took that into account in
16 making their decisions.

17 THE HEARING OFFICER: A decision has
18 been made. It's not part of the application
19 process because the Department prepares that. So
20 the applicant is off the hook on that.

21 MR. NICHOLS: It says it was supposed
22 to be part of the process. Not included.

23 THE HEARING OFFICER: Well...

24 MR. NICHOLS: It seems that that



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1 ought to be available.

2 THE HEARING OFFICER: Mr. Coyle, do
3 you have an answer for that.

4 MR. COYLE: I do not.

5 THE HEARING OFFICER: With that,
6 we'll conclude the public hearing.

7 Does anybody want to keep the record
8 open for additional information? The Department
9 reserves the right to supplement the record as
10 needed by the Secretary to make his decision or
11 as I may need information.

12 Hearing nothing --

13 MR. NICHOLS: I would like to be able
14 to provide additional information.

15 THE HEARING OFFICER: When are you
16 going to provide that?

17 MR. NICHOLS: Tomorrow.

18 THE HEARING OFFICER: Okay. You'll
19 have to the close of business on March 7, then,
20 to send it to Mr. Coyle. Do you have his e-mail
21 address?

22 MR. NICHOLS: I'll get that.

23 THE HEARING OFFICER: That will be
24 great. We will get it to the applicant.



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1 Again, the Department reserves the
2 right to develop the record to support the
3 Secretary's decision with such information as may
4 be required.

5 Delaware Nature Society written
6 document, I don't know if I identified them.
7 We'll mark them as DNS Exhibit 1.

8 Thank you all for coming.

9 MR. TUCKER: Thank you, Mr. Haynes.

10 (Which was all the proceedings had on
11 hearing of said cause on the date aforesaid.)



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INDEX TO EXHIBITS

Department Exhibits - List attached

Nichols Exhibit 1 - Discussion paper

Nichols Exhibit 2 - Article

Nichols Exhibit 3 - Article

Nichols Exhibit 4 - Material Safety Data Sheet

Nichols Exhibit 5 - OSHA report

Diamond State Generation Partners 1 - Power Point

DNS Exhibit 1 - Written statement



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1 State of Delaware)
)
2 County of New Castle)

3
4
5 C E R T I F I C A T E

6
7 I, Ann M. Calligan, Registered Merit
8 Reporter and Notary Public, do hereby certify
9 that the foregoing record, pages 1 to 60,
inclusive, is a true and accurate transcript of
my stenographic notes taken on March 6, 2012, in
the above-captioned matter.

10 IN WITNESS WHEREOF, I have hereunto set my
11 hand and seal this 12th day of March, 2012, at
12 Wilmington.

13
14
15 

16 Ann M. Calligan, RMR
17
18
19
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21
22
23
24



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